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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,189	06/30/2003	Michael D. Bowman	03-0431	1188

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NEW YORK, NY 10177-0899

EXAMINER

PARRIES, DRU M

ART UNIT	PAPER NUMBER
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2836

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/604,189

Applicant(s)

BOWMAN ET AL.

Examiner

Dru M. Parries

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 11, and 20 have been considered but are moot in view of the new ground(s) of rejection. The rest of the Examiner's response to the Applicant's arguments is as follows: In response to applicant's argument that Lacy is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Examiner agrees that Lacy is not in the field of applicant's endeavor, however, Lacy solves the particular problem of how to distribute power in a load control system. Also, Soucy (the main reference) teaches a system with power regulation in an aircraft, however doesn't teach how to efficiently distribute power (the problem), but Lacy solves that problem with his method of distributing power.

2. Regarding the Applicant's assessment of the Lacy reference, the Examiner points out that Lacy does make a distinction between which loads are of primary importance: the primary loads in Lacy are the uncontrolled loads (18, the ones that are always being supplied with power), and the secondary loads (i.e. the direct and indirect loads of Soucy) are the controlled ones (16). Lacy teaches a priority scheme that makes a distinction between which secondary loads are of primary or higher importance (Col. 5, lines 56-64). The Applicant's assertion that Lacy's priority scheme of Fig. 3 may be different than that of Fig. 2 is moot. Also, Lacy teaches a system where the controller always knows how much power is demanded out of each load

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(primary and secondary) and therefore knows the combined power demand of the secondary loads, and how much power is being consumed by each load and based on this knowledge determines a power extraction limit for the secondary loads and makes sure to not exceed it (“secondary power extraction”, “current operating conditions”, and “secondary power extraction limit (power limit on controlled loads as a group)” – Abstract and Col. 4, lines 32-44). It is inherent that Lacy determines the combined power demand of the secondary loads to determine if the power extraction limit is exceeded. Based on the power consumed by the primary loads, the secondary power extraction limit is varied and is monitored by the controller and connects/disconnects secondary loads accordingly (via priority scheme). To clarify, Lacy teaches a method of controlling power distribution to loads, and the Soucy reference is modified with this method of load control to create a system that controls distribution of power to loads in an aircraft.

3. Regarding the motivation to combine these references, Soucy teaches a power management system but fails to explicitly teach how the controller will control the system to work efficiently. Therefore, this would give one of ordinary skill in the art the motivation to search for efficient methods of power management. While searching for efficient methods of power management, one would come across the Lacy reference and would be motivated to implement this method of power management into Soucy’s invention to create an efficient system where one could power as many loads as safely possible. The fact that Lacy’s invention, as a whole, isn’t suited for use in an aircraft is moot; since Soucy teaches power management in an aircraft, and the only thing being modified using Lacy’s invention is the method of power management to loads.

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4. Regarding the Applicant's argument that Soucy fails to teach "secondary electrical loads", this contradicts what the Applicant is claiming in claim 1 (and claim 3). The Applicant claims (in claim 3) that a generator is one of the secondary electrical loads. The Examiner was just following what the Applicant's claims stated. The Examiner agrees on the Applicant's assessment of how an engine and a generator work together mechanically (not electrically). Therefore, a 112 rejection follows, below, stating that generators are not electrical loads. What Soucy states in column 1, lines 22-31 is precisely what is taught in amended paragraph 0021 of the Applicant's specification.

5. Regarding the Applicant's assessment of the Soucy invention on page 11, the fuel supply controller and the governor control the supply of fuel to the engine, which in turn controls the speed of the engine, which in turn controls the secondary direct load (generator), which in turn controls the secondary indirect electrical load (load). Therefore, Soucy does teach the fuel supply controller and governor (indirectly) controlling the electrical load.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 contradicts claim 1. Claim 1 states a plurality of secondary electrical loads and claim 3 states one of those loads being a generator, which is not an electrical load. The Examiner suggests removing the word "electrical" from all of the terms related to the term "secondary electrical load" in the claims, since it is taught in the amended specification that all

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the secondary direct loads aren't electrical loads. The Examiner will examine the claims as being read as "secondary loads".

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-6, and 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soucy (6,476,510), Bushell et al. (6,011,493), and Lacy (6,510,369). Soucy teaches a power management system for an aircraft. He teaches plurality of secondary loads (direct - generator, indirect - load, Fig. 1), at least one flight condition sensor (engine speed sensor), and a controller (fuel supply controller & governor) coupled to the plurality of loads and the sensor. Soucy doesn't explicitly teach the types of loads being powered, nor how the controller will control the system to work efficiently. Bushell teaches one of the secondary electrical loads being powered in an aircraft being a lighting system. It would have been obvious to one of ordinary skill in the art at the time of the invention to have one of the secondary electrical loads in Soucy's invention be the lighting system of the aircraft, since Bushell teaches a lighting system being one of the loads powered by an aircraft and Soucy's fails to teach specific loads being powered. Lacy teaches a system with a controller and primary (uncontrolled residential) and secondary (controlled residential) loads. Lacy teaches a controller that can determine the secondary power extraction, current operating conditions and secondary power extraction limit and can operate the plurality of secondary loads in response to the secondary power extraction and limits. (Abstract,

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lines 7-12) The controller, while determining current operating conditions determines the primary power extraction (power output to uncontrolled residential loads). Lacy also teaches the controller operating the secondary loads in priority (Col. 5, lines 56-64). He also teaches the controller limiting the operation the secondary loads when the power extraction is greater than the limit (Col. 4, lines 1-14). (Col. 2, lines 59-67; Col. 3, lines 28-36; Col. 4, lines 32-44) It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Lacy's method of power distribution into Soucy's invention so that the engine can supply power to as many loads as possible in the safest possible way, and to make sure that the engine never exceeds its output capabilities which may lead to malfunction. It is also noted that it has been held that the recitation that an element is "adapted for" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on M-Th from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

2-26-2007



CHAU N. NGUYEN
PRIMARY EXAMINER